



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/081,596

02/20/2002

Serge Willenegger

020267

9632

23696

7590

06/07/2004

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

LELE, TANMAY S

ART UNIT

PAPER NUMBER

2684

DATE MAILED: 06/07/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/081,596

Applicant(s)

WILLENEGGER, SERGE

Examiner

Tanmay S Lele

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 2 – 4 and 7 – 9 have been considered but are moot in view of the new ground(s) of rejection.

Note that in Applicant's response, (paper number 9) specifically on page 8, Applicant states, "It is accordingly believed to be clear that the Wang reference neither shows nor suggests the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art;" yet Applicant has canceled claim 1 as per pages 4 and 6 of paper number 9. As Applicant further states, "For at least the same reasons claim 7 is believed to be patentable, independent claims 8 and 9 are also believed to be patentable. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 7," it was assumed Applicant was referring to these claims and thus examination proceeded as such.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2 and 7 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (Wang, World International Publication Number WO 01/18987) in view of Meier et al. (Meier, US Patent Application No. 2002/0172168).

Regarding claims 7 and 8, Wang teaches of in a wireless communication system, a

Art Unit: 2684

method and apparatus comprising: determining a transmission configuration for a first channel as a function of Peak to-Average Ratio (PAR) on the first channel, the transmission configuration including a spreading code and a modulation path (starting page 5, line 30 and ending page 6, lines 10; page 6, lines 14 – 21); if the spreading code is used by another channel in the wireless communication system (page 6, lines 14 – 32; page 7, lines 10 – 32 and page 4, lines 6 – 17), and applying the configuration to the first channel (starting page 5, line 30 and ending page 6, lines 10).

Wang does not specifically teach of determining the next best optimum transmission configuration, based on a resultant PAR value; and applying the next best optimum transmission configuration to the first channel (though makes reference to assignment of codes to optimize PAR starting page 14, line 28 and ending page 15, line 4 and makes further reference to optimal codes based on priority starting page 16, line 21 and ending page 17, line 2).

In a related art dealing with code allocation in a spread spectrum system, Meier teaches of determining the next best optimum transmission configuration, based on a resultant PAR value (paragraph 0013, 0019, 0030, and 0033); and applying the next best optimum transmission configuration to the first channel (paragraph 0013, 0019, 0030, and 0033).

It would have been obvious to one skilled in the art at the time of invention to have included into Wang's intelligent code assignment, Meier's code allocation system, for the purposes of using a code to maintain a peak-to-average power ratio at or below an acceptable level, as taught by Meier.

Regarding claim 9, Wang teaches of a wireless apparatus, comprising: a first transmission pair selection unit for determining a transmission configuration for a first channel as a function

Art Unit: 2684

of Peak-to-Average Ratio (PAR) on the first channel, the transmission configuration including a spreading code and a modulation path (starting page 5, line 30 and ending page 6, lines 10; page 6, lines 14 – 21); and a determination unit for determining whether the spreading code is in use on another channel (page 6, lines 14 – 32; page 7, lines 10 – 32 and page 4, lines 6 – 17).

Wang does not specifically teach of a second transmission pair selection unit for determining the next best optimum transmission configuration, based on a resultant PAR value, if the spreading code is used by another channel in the wireless communication system (though makes reference to assignment of codes to optimize PAR starting page 14, line 28 and ending page 15, line 4 and makes further reference to optimal codes based on priority starting page 16, line 21 and ending page 17, line 2).

In a related art dealing with code allocation in a spread spectrum system, Meier teaches of a second transmission pair selection unit for determining the next best optimum transmission configuration, based on a resultant PAR value, if the spreading code is used by another channel in the wireless communication system (paragraph 0013, 0019, 0030, and 0033).

It would have been obvious to one skilled in the art at the time of invention to have included into Wang's intelligent code assignment, Meier's code allocation system, for the purposes of using a code to maintain a peak-to-average power ratio at or below an acceptable level, as taught by Meier.

Regarding claim 2, Wang in view of Meier teach all the claimed limitations as recited in claim 7. Wang further teaches of wherein the modulation path is selected from an In-phase (I) branch and a Quadrature (Q) branch (pages 6, lines 3 – 7; page 7, lines 5 – 9).

Art Unit: 2684

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (Wang, World International Publication Number WO 01/18987) and Meier et al. (Meier, US Patent Application No. 2002/0172168) as applied to claim 7 above, and further in view of Choi et al (Choi, US Patent Application No. 2002/0018457).

Regarding claim 3, Wang and Meier teach all the claimed limitations as recited in claim 7. Wang further teaches of on an uplink in the wireless communication system (page 7, lines 22–28) but not specifically of wherein the first channel is a dedicated physical channel.

In a related art dealing with channel allocation in a CDMA system, Choi teaches of wherein the first channel is a dedicated physical channel (paragraph 0027 and 0007 and 0033).

It would have obvious to one skilled in the art at the time of invention to have included into Wang and Meier's transmission system, Choi's channel system, for the purposes of providing a solution to channel allocation in an OVSF code system (which experience channel allocation problems) as taught by Choi.

Regarding claim 4, Wang in view of Meier and Choi teach all the claimed limitations as recited in claim 3. Choi further teaches of wherein the wireless communication system includes a plurality of dedicated data channels (paragraph 0027, 0033, and 0127) and at least one dedicated control channels (paragraph 0027, 0033, and 0127).

Citation of Pertinent Prior Art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Inventor	Publication	Number	Disclosure
Kim et al.	US Patent	6,490,267	Device and method for generating spreading code and spreading channel signals

Art Unit: 2684

			using spreading code in a CDMA communication system
Hernandez	US Patent Application	2003/0063556	Block segmentation procedure for reduction of peak-to-average power effects in orthogonal frequency-division multiplexing modulation

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanmay S Lele whose telephone number is (703) 305-3462. The examiner can normally be reached on 9 - 6:30 PM Monday – Thursdays and on alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A. Maung can be reached on (703) 308-7745. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2684

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.


Tanmay S Lele
Examiner
Art Unit 2684

tsl
May 26, 2004



**NICK CORSARO
PATENT EXAMINER**